RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	09/911,692 C
Source:	IFWO
Date Processed by STIC:	08/29/2005

ENTERED



IFWO

DATE: 08/29/2005 RAW SEQUENCE LISTING PATENT APPLICATION: US/09/911,692C TIME: 14:59:23

Input Set : E:\09-911692 SL4.txt

3 <110> APPLICANT: Biogen Idec Inc. Anderson, Darrell R.

4

Output Set: N:\CRF4\08292005\1911692C.raw

```
5
         Rastetter, William H.
 6
         Hanna, Nabil
 7
         Leonard, John E.
 8
         Newman, Roland
 9
         Reff, Mitchell
11 <120> TITLE OF INVENTION: EXPRESSION AND USE OF ANTI-CD20 ANTIBODIES
13 <130> FILE REFERENCE: 27693-01009
15 <140> CURRENT APPLICATION NUMBER: 09/911,692C
16 <141> CURRENT FILING DATE: 2001-07-25
18 <150> PRIOR APPLICATION NUMBER: US 08/475,813
19 <151> PRIOR FILING DATE: 1995-06-07
21 <150> PRIOR APPLICATION NUMBER: US 08/149,099
22 <151> PRIOR FILING DATE: 1993-11-03
24 <150> PRIOR APPLICATION NUMBER: US 07/978,891
25 <151> PRIOR FILING DATE: 1992-11-13
27 <160> NUMBER OF SEQ ID NOS: 11
29 <210> SEQ ID NO: 1
30 <211> LENGTH: 8540
31 <212> TYPE: DNA
32 <213> ORGANISM: Artificial Sequence
34 <220> FEATURE:
35 <223> OTHER INFORMATION: vector
37 <400> SEQUENCE: 1
38 gaegtegegg eegetetagg eetecaaaaa ageeteetea etaettetgg aatageteag
                                                                          60
39 aggccgaggc ggcctcggcc tctgcataaa taaaaaaaat tagtcagcca tgcatggggc
                                                                         120
40 ggagaatggg cggaactggg cggagttagg ggcgggatgg gcggagttag gggcgggact
                                                                         180
41 atggttgctg actaattgag atgcatgctt tgcatacttc tgcctgctgg ggagcctggg
                                                                         240
42 gactttccac acctggttgc tgactaattg agatgcatgc tttgcatact tctgcctgct
                                                                         300
43 ggggagcctg gggactttcc acaccctaac tgacacacat tccacagaat taattcccct
                                                                         360
44 agttattaat agtaatcaat tacggggtca ttagttcata gcccatatat ggagttccgc
                                                                         420
45 gttacataac ttacggtaaa tggcccgcct ggctgaccgc ccaacgaccc ccgcccattg
                                                                         480
46 acgtcaataa tgacgtatgt tcccatagta acgccaatag ggactttcca ttgacgtcaa
                                                                         540
47 tgggtggact atttacggta aactgcccac ttggcagtac atcaagtgta tcatatgcca
                                                                         600
48 agtacgcccc ctattgacgt caatgacggt aaatggcccg cctggcatta tgcccagtac
                                                                         660
49 atgacettat gggaetttee tacttggeag tacatetaeg tattagteat egetattaee
                                                                         720
50 atggtgatgc ggttttggca gtacatcaat gggcgtggat agcggtttga ctcacgggga
                                                                         780
51 tttccaagtc tccaccccat tgacgtcaat gggagtttgt tttggcacca aaatcaacgg
                                                                         840
52 gactttccaa aatgtcgtaa caactccgcc ccattgacgc aaatgggcgg taggcgtgta
                                                                         900
53 cggtgggagg tctatataag cagagctggg tacgtgaacc gtcagatcgc ctggagacgc
                                                                         960
54 catcacagat ctctcaccat gagggtcccc gctcagctcc tggggctcct gctgctctgg
                                                                        1020
55 ctcccaggtg cacgatgtga tggtaccaag gtggaaatca aacgtacggt ggctqcacca
                                                                        1080
```

RAW SEQUENCE LISTING DATE: 08/29/2005 PATENT APPLICATION: US/09/911,692C TIME: 14:59:23

Input Set : E:\09-911692_SL4.txt

Output Set: N:\CRF4\08292005\1911692C.raw

			atctgatgag				1140
			tcccagagag				1200
			ggagagtgtc				1260
			gctgagcaaa				1320
			cctgagctcg	_			1380
			acggttacca				1440
62	ggccgtgata	tctacgtatg	atcagcctcg	actgtgcctt	ctagttgcca	gccatctgtt	1500
63	gtttgcccct	ccccgtgcc	ttccttgacc	ctggaaggtg	ccactcccac	tgtcctttcc	1560
64	taataaaatg	aggaaattgc	atcgcattgt	ctgagtaggt	gtcattctat	tctggggggt	1620
65	ggggtggggc	aggacagcaa	gggggaggat	tgggaagaca	atagcaggca	tgctggggat	1680
66	gcggtgggct	ctatggaacc	agctggggct	cgacagctat	gccaagtacg	cccctattg	1740
67	acgtcaatga	cggtaaatgg	cccgcctggc	attatgccca	gtacatgacc	ttatgggact	1800
			tacgtattag				1860
			ggatagcggt				1920
			ttgttttggc			_	1980
			acgcaaatgg				2040
			ctcacattca				2100
			gctcttcctt		-		2160
			cctggcaccc				2220
			ggactacttc				2280
			gcacaccttc				2340
			cgtgccctcc				2400
			caacaccaag		-	_	2460
			accgtgccca				2520
	_	_	caaggacacc	_			2580
			ccacgaagac				2640
			caagacaaag				2700
			cgtcctgcac				2760
							2820
			cctcccagcc				2880
			ggtgtacacc				2940
			cctggtcaaa				
			ggagaacaac				3000
			cagcaagctc				3060
			gatgcatgag				3120
			atgaggatcc				3180
			gatatctacg				3240
			ccctcccccg				3300
			aatgaggaaa				3360
94	ctattctggg	gggtggggtg	gggcaggaca	gcaaggggga	ggattgggaa	gacaatagca	3420
			ggctctatgg				3480
			ctcaatttct				3540
			agttgattga				3600
98	agacagtgtt	ctctgcacag	ataaggacaa	acattattca	gagggagtac	ccagagctga	3660
99	gactcctaag	ccagtgagtg	gcacagcatt	ctagggagaa	atatgcttgt	catcaccgaa	3720
100	gcctgattco	gtagagccad	accttggtaa	a gggccaatct	gctcacacac	g gatagagagg	3780
						acatttgctt	3840
						gatttcgcgc	3900
						tgccatcatg	3960
						g caagaacgga	4020
	-	_					

RAW SEQUENCE LISTING DATE: 08/29/2005 PATENT APPLICATION: US/09/911,692C TIME: 14:59:23

Input Set : E:\09-911692_SL4.txt

Output Set: N:\CRF4\08292005\I911692C.raw

	gacctaccct						4080
	tcttcagtgg						4140
	cctgagaaca						4200
108	gaaccaccac	gaggagctca	ttttcttgcc	aaaagtttgg	atgatgcctt	aagacttatt	4260
	gaacaaccgg						4320
110	taccaggaag	ccatgaatca	accaggccac	cttagactct	ttgtgacaag	gatcatgcag	4380
	gaatttgaaa						4440
112	gaatacccag	gcgtcctctc	tgaggtccag	gaggaaaaag	gcatcaagta	taagtttgaa	4500
	gtctacgaga						4560
114	tcatgcattt	ttataagacc	atgggacttt	tgctggcttt	agatcagcct	cgactgtgcc	4620
	ttctagttgc						4680
116	tgccactccc	actgtccttt	cctaataaaa	tgaggaaatt	gcatcgcatt	gtctgagtag	4740
117	gtgtcattct	attctggggg	gtggggtggg	gcaggacagc	aagggggagg	attgggaaga	4800
	caatagcagg						4860
119	tagctttgct	tctcaatttc	ttatttgcat	aatgagaaaa	aaaggaaaat	taattttaac	4920
	accaattcag						4980
121	tctctgcaca	gataaggaca	aacattattc	agagggagta	cccagagctg	agactcctaa	5040
122	gccagtgagt	ggcacagcat	tctagggaga	aatatgcttg	tcatcaccga	agcctgattc	5100
	cgtagagcca						5160
	agggcagagc						5220
	ttgtgttggg						5280
	tccggccgct						5340
	ctctgatgcc						5400
	cgacctgtcc						5460
	cacgacgggc						5520
	gctgctattg			_	_		5580
	gaaagtatcc						5640
	cccattcgac						5700
	tcttgtcgat						5760
	cgccaggctc						5820
	ctgcttgccg						5880
	gctgggtgtg						5940
	gcttggcggc						6000
	gcagcgcatc						6060
	gaaatgaccg						6120
	ttctatgaaa						6180
	cgcggggatc						6240
	ggttacaaat				_	-	6300
	tctagttgtg						6360
	atcccgtcga						6420
	cgctcacaat						6480
	aatgagtgag						6540
	acctgtcgtg						6600
	ttgggcgctc						6660
	gagcggtatc						6720
	caggaaagaa						6780
	tgctggcgtt						6840
	gtcagaggtg						6900
T03	ccctcgtgcg	ctctcctgtt	ccgaccctgc	cgcttaccgg	atacctgtcc	gcctttctcc	6960

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/911,692C TIME: 14:59:23

DATE: 08/29/2005

Input Set : E:\09-911692_SL4.txt

Output Set: N:\CRF4\08292005\I911692C.raw

154	cttcgggaag	cgtggcgctt	tctcaatgct	cacgctgtag	gtatctcagt	tcggtgtagg	7020
155	tcgttcgctc	caagctgggc	tgtgtgcacg	aaccccccgt	tcagcccgac	cgctgcgcct	7080
			gagtccaacc				7140
157	cagccactgg	taacaggatt	agcagagcga	ggtatgtagg	cggtgctaca	gagttcttga	7200
158	agtggtggcc	taactacggc	tacactagaa	ggacagtatt	tggtatctgc	gctctgctga	7260
159	agccagttac	cttcggaaaa	agagttggta	gctcttgatc	cggcaaacaa	accaccgctg	7320
			tgcaagcagc				7380
161	aagatccttt	gatcttttct	acggggtctg	acgctcagtg	gaacgaaaac	tcacgttaag	7440
162	ggattttggt	catgagatta	tcaaaaagga	tcttcaccta	gatcctttta	aattaaaaat	7500
163	gaagttttaa	atcaatctaa	agtatatatg	agtaaacttg	gtctgacagt	taccaatgct	7560
164	taatcagtga	ggcacctatc	tcagcgatct	gtctatttcg	ttcatccata	gttgcctgac	7620
165	tccccgtcgt	gtagataact	acgatacggg	agggcttacc	atctggcccc	agtgctgcaa	7680
166	tgataccgcg	agacccacgc	tcaccggctc	cagatttatc	agcaataaac	cagccagccg	7740
167	gaagggccga	gcgcagaagt	ggtcctgcaa	ctttatccgc	ctccatccag	tctattaatt	7800
			agtagttcgc				7860
			tcacgctcgt				7920
			acatgatccc				7980
			agaagtaagt				8040
			actgtcatgc				8100
	-		tgagaatagt		-		8160
			gcgccacata				8220
			ctctcaagga				8280
			tgatcttcag				8340
			aatgccgcaa				8400
			tttcaatatt				8460
			tgtatttaga				8520
	ttccccgaaa		, ,		2223	5 5	8540
	<210> SEQ 1						
	<211> LENGT						
	<212> TYPE:						
185	<213> ORGAN	NISM: Artifi	icial Sequer	nce			
	<220> FEATU		, •				
188	<223> OTHER	R INFORMATIO	DN: vector v	with chimeri	ic antibody	sequence	
	<400> SEQUE					•	
			cctccaaaaa	agcctcctca	ctacttctqq	aatagctcag	60
			tctgcataaa	_			120
			cggagttagg				180
			atgcatgctt				240
			tgactaattg				300
			acaccctaac				360
			tacggggtca				420
	_	_	tggcccgcct	-	-		480
			tcccatagta				540
			aactgcccac				600
			caatgacggt				660
			tacttggcag			-	720
			gtacatcaat				780
			tgacgtcaat				840
			caactccgcc				900
	•	J - J	9	- 5 5 -	233-33	JJ : J = J = -	

RAW SEQUENCE LISTING DATE: 08/29/2005 PATENT APPLICATION: US/09/911,692C TIME: 14:59:23

Input Set : E:\09-911692_SL4.txt

Output Set: N:\CRF4\08292005\I911692C.raw

			cagagctggg				960
			ggattttcag		-		1020
			aggacaaatt	_	-	_	1080
						aagttacatc	1140
210	cactggttcc	agcagaagcc	aggatcctcc	cccaaaccct	ggatttatgc	cacatccaac	1200
211	ctggcttctg	gagtccctgt	tcgcttcagt	ggcagtgggt	ctgggacttc	ttactctctc	1260
212	acaatcagca	gagtggaggc	tgaagatgct	gccacttatt	actgccagca	gtggactagt	1320
213	aacccaccca	cgttcggagg	ggggaccaag	ctggaaatca	aacgtacggt	ggctgcacca	1380
214	tctgtcttca	tcttcccgcc	atctgatgag	cagttgaaat	ctggaactgc	ctctgttgtg	1440
215	tgcctgctga	ataacttcta	tcccagagag	gccaaagtac	agtggaaggt	ggataacgcc	1500
216	ctccaatcgg	gtaactccca	ggagagtgtc	acagagcagg	acagcaagga	cagcacctac	1560
217	agcctcagca	gcaccctgac	gctgagcaaa	gcagactacg	agaaacacaa	agtctacgcc	1620
218	tgcgaagtca	cccatcaggg	cctgagctcg	cccgtcacaa	agagcttcaa	caggggagag	1680
219	tgttgaattc	agatccgtta	acggttacca	actacctaga	ctggattcgt	gacaacatgc	1740
			atcagcctcg				1800
			ttccttgacc				1860
			atcgcattgt				1920
			gggggaggat				1980
			agctggggct				2040
			cccgcctggc				2100
			tacgtattag				2160
			ggatagcggt				2220
			ttgttttggc				2280
			acgcaaatgg			_	2340
			ctcacattca				2400
			gctcttcctt				2460
			ggctgagctg				2520
	_		atttaccagt				2580
			tggagctatt	_		_	2640
			cacattgact				2700
			tgaggactct				2760
			caatgtctgg			_	2820
			ggtcttcccc				2880
			cctggtcaag				2940
			cagcggcgtg				3000
			cgtggtgacc				3060
			caagcccagc			_	3120
			cacatgccca				3180
			cccaaaaccc				3240
			ggacgtgagc				3300
			gcataatgcc				3360
			cgtcctcacc				3420
			caacaaagcc				3480
			agaaccacag				3540
			cctgacctgc				3600
			tgggcagccg				3660
			cttcctctac				3720
			atgctccgtg				3780
			tccgggtaaa				3840
234	Jagaagagee	Julian	cocyyytada	cyayyacccy	ccaacyycta		2040

VERIFICATION SUMMARY

DATE: 08/29/2005

PATENT APPLICATION: US/09/911,692C

TIME: 14:59:24

Input Set : E:\09-911692_SL4.txt

Output Set: N:\CRF4\08292005\1911692C.raw